

CENTRAL INTELLIGENCE AGENCY

50X1-HUM

INFORMATION REPORT

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REPORT

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COUNTRY : USSR (Moscow Oblast)

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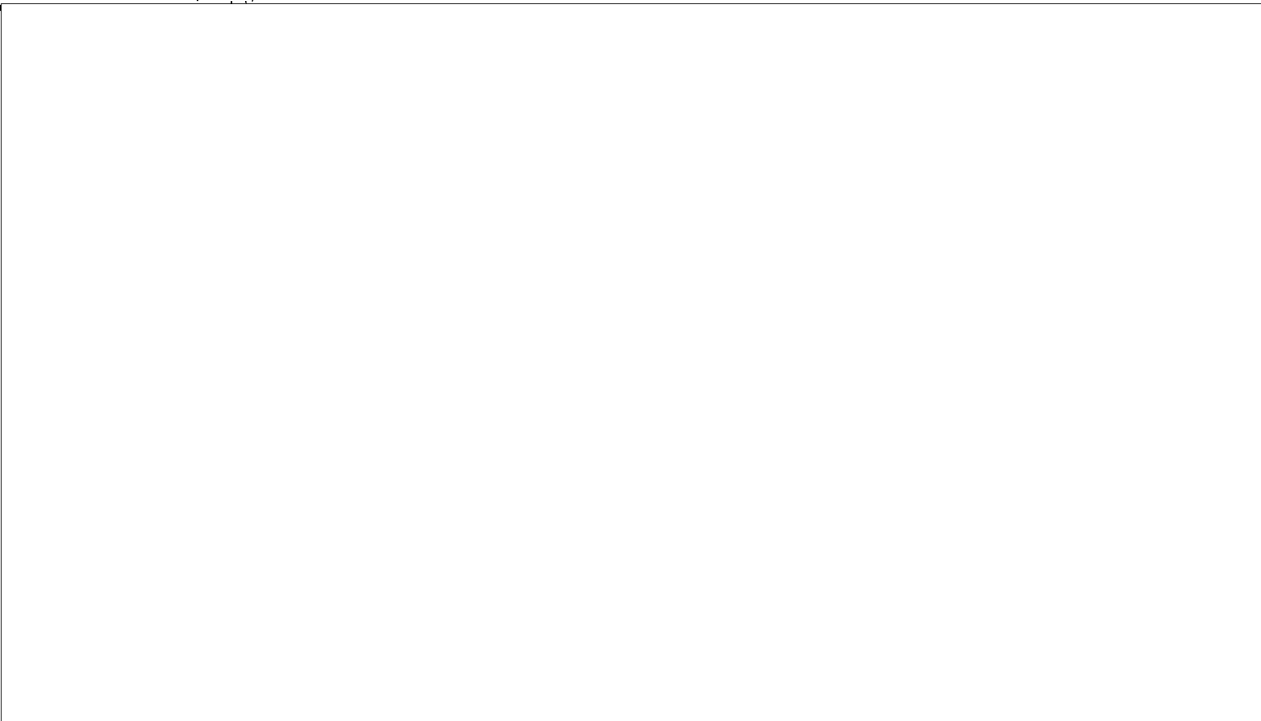
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THIS IS UNEVALUATED INFORMATION



GENERAL

1. When our group arrived at Khimki in October 1946, the building that was to become Plant 456 was an empty shell. We heard from Soviets that an aircraft plant which had been evacuated to Tashkent in 1941 had been located here. The outside walls of the plant, which were made of stone about 30 centimeters thick, and a few internal walls were standing at that time. By the end of 1946 internal reconstruction was sufficiently advanced to enable our group to commence work, but final construction of internal walls, ceilings, and utilities such as heating, lighting, and inter-departmental communication was not completed until late in 1948. By the time our group left the USSR in September 1950 the plant had grown to the point where I estimate between 3,500 to 4,000 workers were employed there.

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2. The roof over the plant is supported by square masonry columns about 20 centimeters on a side which are spaced approximately 10 meters apart. I do not have any knowledge of how these columns supported the roof, that is, what method of construction was used. I do not know of what material the roof is constructed, but I believe that it is flat over the entire plant except over the Design Office [see Point 11 on page 6] where inclined skylights admitted sunlight, and over the former dirigible hangars [see Point 21] where it was rounded. The roof varied in height over various parts of the plant. For example, although the roof was generally from 12 to 14 meters high, over the Welding and Sheet Metal Working Shop, the Design Office, the Museum, the Testing Room, and the Mechanical Workshop [see Points 8 through 12] the roof was only from seven to eight meters high. At least over the Design Office the roof was in very poor condition, and leaked so badly that drawing boards were constantly in danger of being completely ruined.
3. I have drawn a diagram of the plant to the best of my memory showing the internal arrangement of departments and shops [see page 16]. All units shown are on the ground floor only. However, over the tool issue booths, the Mechanical Workshop for Development, and those plant offices adjacent to this workshop [see Points 3, 4 and 7] are the main plant administrative offices. I have also drawn a diagram of these offices [see page 17].
4. It will be noted not only in the body of this report but also on the diagrams of the plant's internal layout that there are apparently duplications of function both between administrative offices as well as between functional units such as workshops. This is because Plant 456 is essentially two plants in one: a development plant occupying slightly less than half of the total floor space [see Points 3 through 12] and a production plant occupying the remainder. Although these "plants" have a common general director, they are entirely separate organizations and are almost completely independent of each other. For example, there are separate payroll offices [see Points 4 and 8 on page 10] and there are separate mechanical workshops [see Points 4 and 15 on pages 4 and 7]. There is, to be sure, some overlapping in the assignments of these two organizations, and they assist each other when necessary, but as a rule one is devoted to developmental work and the other to production.
5. The differences in the activities of the two halves of Plant 456 may be explained as follows: The developmental side of the plant was charged with (a) bringing the Soviets up to the level of V-2 development which existed in Germany at the end of the war by thoroughly indoctrinating Soviet technicians in the manufacture, assembly, testing, and operation of all V-2 combustion chamber and propulsion components as well as the combustion chambers themselves, (b) increasing the twenty-five-ton thrust of the V-2 to thirty-five tons thrust, and (c) making drawings for combustion chambers of one hundred tons thrust rating. The production side of the plant also had a three-fold assignment. First, I believe that it was responsible for the production of V-1's, the assembly of which took place in the assembly area at the western end of the plant [see Point 18 on page 8]. I am not sure of this, however, because this area was closed to Germans at the end of 1947. Secondly, the production side of the plant was responsible for making the

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necessary preparations for series production of V-2 combustion chambers. I do not know what the final results of this work were because as soon as drawings and testing or assembly equipment for this purpose were completed, they were removed from the plant, presumably to the site of series production. Where this may be I cannot say, but I heard Soviet engineers mention that after training in the assembly and testing of V-2 combustion chamber components at Plant 456 they were to be transferred to Kuybyshev. Another reason why I believe series production of V-2's may be under way at Kuybyshev is that we heard rumors in mid-1949 that our entire group was to be transferred there later in 1949 or early in 1950. These plans were cancelled by the Aircraft Ministry for reasons unknown to me. The last activity carried on by the production side of Plant 456 was the manufacture of certain goods for sale on the consumer market: metal bedsteads, buckets, cooking utensils, etc. I heard Soviets state that the reason for this last type of production is that all plants in the USSR must produce some consumer items in order to be able to pay their production workers. This was evidently the case at Plant 456 because while we development workers received our pay directly from the Aircraft Ministry regularly on the third and eighteenth of every month, production workers often had to wait as long as five days for their wages, presumably when sales were slack.

Other Activities Engaged in By Plant 456

6. Plant 456 engaged in no activities known to me other than those mentioned in the previous paragraph. I am positive that there was no aircraft construction at the plant while I was there, and I heard of no plans to convert the plant to any new types of production after September 1950 when our group left the USSR. I knew of no indications that the plant was to be transferred, either administratively from the Aircraft Ministry or physically from Khimki, although as mentioned in the previous paragraph, there was some indication that series production of V-2 propulsion units was to be carried out at Kuybyshev. I did not know of any direct connection between Plants 456 and 88. There may have been liaison between these plants at high levels, however, because I believe 50- and 75-ton thrust propulsion units were developed at Plant 88, and, as mentioned above, Plant 456 was engaged in work on propulsion units of 25 to 35 and 100 tons thrust rating. One other connection between the two plants was the fact that PUTZE and SCHWARZ lived for a few months with the Germans employed at Plant 88 until construction of permanent housing for our group was completed in Khimki in early 1947. This was because there was not sufficient temporary housing available in Menshinets, where the remainder of our group was housed.

Materials Used in Production of V-2 Rockets

7. At Plant 456 we worked only on the propulsion unit of the V-2, not the entire missile. As far as I know, the Soviets used exactly the same metals for V-2 propulsion unit components as we Germans had employed. German valves were made of duraluminum, a combination of aluminum, copper, zinc, and possibly small amounts of other metals. The exact composition is not known to me, but this metal is widely used in the aircraft industry. For the combustion chambers I believe a chrome-nickel steel with the

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Soviet designation S-15 (Russian: G-15) was used. This steel is equivalent to the German steel type ST-37.12, but I do not know the exact composition. I have no additional information on the metals used in Soviet V-2 propulsion units. I do not know the exact amount of any metal consumed in the production of any propulsion unit component.

8. The principal units of Plant 456 are as follows [see page 16].

Point 1 Guard House

This single-story brick building is about ten meters long by three meters wide. I do not remember what type of roof it has. In addition to the main personnel entrance to the plant which leads through this building, the office of the chief of the plant guards and a warming room for guards not on duty are here. [See paragraphs 10 -27 for a detailed discussion of the security measures in effect at Plant 456.]

Point 2 Road

This road is seven to eight meters wide and is surfaced with asphalt between the guard house and the plant and for about 50 meters to each side. Elsewhere outside the plant there are paving stones. The road enters the plant at two points, 2-a and 2-b; the gates shown at 2-c, 2-d, and 2-e were permanently locked, although they could presumably be opened if necessary or in an emergency. Within the plant this road is covered with cast iron sheets.

Point 3 Tool Issue Area

This area is about 100 by 10 meters and is divided into a number of booths where various kinds of working tools may be drawn such as drill bits, lathe fittings, oil, reamers, and also hand tools such as electric drills, hammers, chisels, etc. These tools were principally for the use of workers in the adjacent workshop. The roof over these booths as well as that over the adjacent workshop was about four to five meters high.

Point 4 Mechanical Workshop for Development (Mechanische Werkstatt fuer Entwicklung)

This large workshop, about 80 by 80 meters, is the principal machine shop serving the requirements of the developmental side of Plant 456 for machined parts. Equipment in this workshop consisted of many types of lathes, milling machines, drill presses, shapers, grinders, etc. Machined parts were made here for valves, combustion chambers, test equipment, experimental jigs, and also special parts for the combustion chamber test stands. [See Report No.

[redacted] for a description of the 25-ton test stand and other principal points of interest in Khimki.] All of the machine tools and other equipment installed and used in this workshop as well as in the entire plant had been taken from Germany at the end of the war. During my entire four years at Plant 456 I do not remember seeing any equipment which was newer than that originally taken from Germany or of Soviet manufacture.

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Point 5 Special Developmental Department (Sonderabteilung Entwicklung)

I worked in this department from January 1947 to August 1948. This department is about 80 meters long by 25 meters wide. The roof of this department is about six to seven meters high, which is the height of the roof over the entire central section of the southern side of the plant, that is, over the road just outside the Special Developmental Department and continuing to the other side of the Mechanical Workshop and the Design Office. From January 1947 until August 1948 we trained Soviet technicians in this department in the assembly, testing, operation, and repair of valves, propulsion units, and combustion chambers. These tests involved only the proper functioning of the mechanical components and actual firing tests were carried out at the test stand outside the plant. We also built test benches to test the operation of valves, pressure reducers, electromagnetic relays, etc. These tests continued at least until August 1948, when we Germans were barred from this department for security reasons because a 100-ton thrust unit was to be assembled here. I believe this to be true because Soviets mentioned that such a unit was to be assembled here, and although the object being assembled was concealed by a large piece of canvas about five meters long extending from the floor to the ceiling, I saw components for the 100-ton thrust unit which had been designed by members of our group in the Developmental Design Office [see Point 16 on page 12] delivered here.

Point 6 Assembly and Testing Bench for Aircraft Takeoff Assistance Rockets

In the northwest corner of the Special Developmental Department six to eight Soviets were engaged in work on aircraft takeoff assistance rockets. I do not know exactly what this work consisted of because I was not permitted to observe it closely, but I believe it involved both assembly and testing, possibly of new components or revised designs. Each rocket was from 550 to 600 millimeters long by about 350 millimeters in diameter at the widest part of the body, which was about one fifth of the way back from the nose. The nose was blunt but rounded, and the body of the rocket resembled a Venturi tube, tapering gradually to about one fifth of the way from the firing end and flaring somewhat from this point to the end. Each rocket was constructed of four lateral sections which were welded together, the front two of which were about 100 millimeters long, the third section about 150 millimeters long, and the tail section about 250 millimeters long. On one side was a metal bracket for attaching the rocket to an aircraft, and three tubes, one on each of the other three sides, led from the front section back to the stern section with connections at each of the intermediate sections. I do not know what components were included in the

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assembly of one of these rockets, nor the function of the parts, for example, the metal tubes which connect the body sections, but they may be for cooling fluid. I do not know what fuel these rockets use. I do not know exactly how heavy one of these rockets is, but one could be carried by a man with evidently no great strain, and I estimate that one weighs from 30 to 40 kilograms. As far as I remember, all body sections and the exterior tubes were of non-ferrous metal, but I do not know specifically what metal or alloy. These rockets were tested on the airfield adjacent to Plant 456 on two-engine aircraft and were used either as takeoff assistance rockets or to give an aircraft in flight a sudden burst of acceleration. I do not know what type of aircraft was used in these experiments, but they may have been Douglas aircraft, because I once heard this name mentioned in connection with the experiments.

Point 7Offices

There were five or six offices here, each five by five meters, for the chief of the Mechanical Workshop and various chief engineers subordinate to him such as the chiefs of the lathe section, the milling machine section, etc.

Point 8Welding and Sheet Metal Working Shop

This shop was 40 by 25 meters. Equipment here included presses, metal cutting equipment, a surface table, oxy-acetylene and arc welding equipment, and oxygen, hydrogen and acetylene tanks.

Point 9Museum (25 by 15 meters)

On display were a complete V-2 and many component parts thereof, all of which had been removed from Germany. Admittance to this museum was gained only by presenting written permission from a man's department or shop chief to the chief of the Testing Room. The museum was separated from the Testing Room by a sheet metal wall.

Point 10Testing Room (55 by 25 meters)(minus area of museum as shown)

Until early 1949 mechanical tests on the operation of V-2 components such as valves, turbines, pumps, etc. were carried on here. I do not know what work was performed here after early 1949 because entry to this area was prohibited for Germans at this time.

Point 11Design Office (40 by 25 meters)

I worked in this office from 1948 until the German group was returned to Germany in September 1950. From 18 to 20 drawing boards were set up in this office. Here we designed test equipment for V-2 components as well as modified and improved components themselves.

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Point 12 Mechanical Workshop (55 by 25 meters)

Machine tools such as lathes, grinders, planers, drill presses, milling machines etc. were installed here. Although no Germans were employed in this shop, I learned from Soviets that equipment designed in the Design Office was constructed here.

Point 13 Boiler House (30 by 15 meters, flat roof 10 meters high).

Although I was never inside this building, I know that boilers and generators located here provided the heat and the electric power for the plant. Heating was accomplished by hot air through conduits with outlets in every room of the plant. The entire heating system had been removed from some plant in Germany and was not made to operate successfully until late in 1948. During the winter months prior to that time we were forced to work in temperatures as low as 20 below zero and although our heavy clothing and particularly our heavy gloves were a serious hinderance to our work, we were forced to continue work despite repeated complaints. Machinery in the plant operated on 380 volts, but the lighting system operated on 220 volts. I cannot judge about the higher voltage, but the lighting voltage was fairly steady, with only infrequent variations.

Point 14 Repair Workshop (60 by 25 meters, flat roof seven meters high).

I was never inside this building and consequently do not know what equipment it contained. The chief mechanic of the plant and his staff had offices here, however, and they were responsible for maintenance and repair of all the plant's equipment and facilities such as machinery and the heating, lighting, and plumbing systems. In this building was also the plant's medical office which consisted of two rooms: a waiting room and a consultation and treatment room, both about four meters square. One female doctor was on duty here to give first aid to any workers injured while at work. Her equipment included simple medical supplies such as stethoscope, bandaging materials, iodine, splints, etc.

Point 15 General Mechanical Workshop (Mechanische Werkstatt-allgemein) (100 by 75 meters).

The roof of the plant at this end was from 12 to 14 meters high. Inasmuch as no intermediate roofing had been built over the workshops and the assembly areas here, this was also the roof over these areas (see Points 15, 16, 18, 19 & 20). Equipment in this workshop included metal cutters, presses, welding equipment, metal shaping and hardening equipment, and drills. In addition to some parts for V-2 combustion chambers, this workshop also produced consumer goods such as metal buckets, wash pails, scrubbing boards, cooking utensils such as pots, pans, and dishes, and also metal bedsteads. The heaviest single piece of

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equipment in this workshop was a large hydraulic press which the Soviets had removed from some plant in Germany. This press was about five by six meters at the base and stood at least five meters high. It was used for shaping certain V-2 combustion chamber body components such as the bowl-shaped top. I do not know the capacity of this press.

Point 16 Assembly Area: (100 by 25 meters)
This area was separated from the General mechanical workshop by only a single-strand chain fence. Here V-2 combustion chambers were assembled by Soviets under German supervision.

Point 17 Workshop:
Six by five meters, one floor only, flat roof five meters high. In this building was a workshop where preparations for the testing of V-2 combustion chambers (for example, the manufacture of parts for the test stand and control booth) were carried out. This building had a kitchen and an office for the chief of the test stand. The only machine that I remember inside this workshop was a lathe, and there was also a long workbench along one side. When the test stand for the 25- and 35-ton combustion chamber was completed in late 1947, I believe that this building became a storehouse, but I was never inside after this time.

Point 18 Assembly Area (100 by 25 meters, sheet metal walls).
In 1947 an assembly line for V-2 combustion chambers was set up here using German equipment and under German supervision. When completed in late 1947 a few test pieces were run off on it, and then it was dismantled and removed from the plant. I do not know where it was taken, but believe it was transferred to Kuybyshev [see paragraph 5]. After this time, I heard that this assembly area was to be used for the assembly of V-1's, but this is only hearsay, as we Germans were not permitted to enter this area after the end of 1947.

Point 19 General Mechanical Workshop (120 by 120 meters) (minus area of electroplating shop).
This workshop was equipped with all the principal types of machine tools such as lathes, milling machines, shapers, grinders, drill presses, etc., and also had a large number of workbenches for hand work. I do not know exactly what work was performed here, but heard from Soviets that parts for V-1's and special jigs and dies for the rest of the plant were manufactured here.

Point 20 Electroplating Shop (L-shaped, 50 meters on long side by 30 meters on short side, 15 meters across).
No Germans were employed here, but I was inside this shop numerous times. The only equipment located here were electroplating baths and rinsing tubs. Valves for the V-2 were plated here to protect them from atmospheric moisture. I do not know what other equipment was plated here from other shops and departments.

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Point 21 Two Former Dirigible Hangars,

Each 160 by 30 meters with rounded roof 10 to 12 meters high at peak. These hangars were being used as a storage area for German equipment when we arrived in Khimki in October 1947. When this machinery had been removed as Plant 456 was put in operation, the hangars were left empty. The roofs were in very poor condition, and signs were posted at the entrances warning of the danger of collapse. In 1949 the roofs finally did cave in, and I do not know if the wreckage was ever removed.

Point 22 Engineering Office

There were possibly as many as 20 offices here, each about five by five meters, raised above the level of the adjacent general mechanical workshop. The workshop chief had his office here, and the other offices were occupied by his subordinates, that is, shop foremen, in the mechanical workshop.

Point 23 Material Storage Area (100 by 25 meters).

I do not remember how high the roof is over this quarter of the plant, that is, whether it is from 12 to 14 meters high, as over most of the rest of the plant, or whether it is of some other height. In this area were stored steel beams, metal plates (light metals such as dural, aluminum, tin), screws, nuts, bolts, hearings, etc.

Point 24 Former Storage Area,

175 by 120 meters (minus area of material storage area, dining hall, and materials testing laboratory). Until 1949 a great variety of equipment was stored here: aircraft parts (from both aircraft shot down as well as removed intact from Germany), aircraft communication equipment, rivets, screws, bolts, nuts, metal plates, hand tools, machine tools, cable, wire, etc. From 1949 until we departed Khimki in September 1950 this area was empty and unused.

Point 25 Materials Testing Laboratory (50 by 20 meters)

This laboratory was equipped to perform physical tests on metals and equipment and was fitted with hardness testers, tensile testers, impact testers, etc.

Point 26 Dining Hall,

40 by 15 meters, with roof about five meters high. Here also were a kitchen where hot dishes were prepared and a small booth behind it where foods in bulk could be bought. All three meals were served in the dining hall for workers who wished to eat here.

9. The offices on the second floor of the southeast corner of the plant are as follows: [see page 17]

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- Point 1 Administrative Office (10 by 10 meters)
The roof over this entire floor was from three and one half to four meters high. The rooms were separated by brick walls about 10 centimeters thick. Some of these offices existed prior to 1947, but when the plant was put back in operation they were remodeled. While I was at Plant 456 this office was occupied by WITTKA, who was in charge of the developmental design office just outside his office. In this office were a desk, a table, numerous chairs, a bookcase and a metal safe, all of which had been removed from some plant in Germany. I do not know any details of the safe nor what was kept in it.
- Point 2 Administrative Office (10 by 10 meters)
This office was also equipped with general office furniture: a desk, numerous chairs, a bookcase, and a metal floor safe. This office was occupied by LIST, assistant to WITTKA.
- Point 3 Supply Room (10 by 8 meters)
In this room were stored working materials for use in the design office such as various types of drawing paper, pencils, pens, triangles, scales, and other drafting equipment.
- Point 4 Payroll Office (10 by 8 meters)
In this office the payroll records for the development workers at Plant 456 were kept. I came here twice a month to pick up my wages. Seven or eight Soviet women were employed here under the supervision of the head disbursement official, who was a man.
- Point 5 Administrative Office (10 by 8 meters)
This office belonged to the production side of Plant 456 and I was never inside it. I heard from Soviets, however, that production schedules were drawn up here.
- Point 6 Stairs From Ground Floor
This is the only part of the plant where there is more than one floor.
- Point 7 Administrative Office (20 by 10 meters)
This office also belonged to the production side of the plant, and I was never inside it, but I believe that it was a commercial office which handled the sales of the consumer goods which the plant produced.
- Point 8 Administrative Office
L-shaped, 20 meters on long side, 15 meters on short side. I believe that this is the bookkeeping office for the production department which handles the payroll records for this department as well as other commercial dealings such as procurement of raw materials.
- Point 9 Administrative Office (12 by 10 meters)
I do not know what the functions of this office were because it also belonged to the production department, but I believe that it was engaged in commercial and financial correspondence.

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- Point 10 Administrative Office (20 by 10 meters)
Just inside the door of this office was a large conference table seating at least 20 persons. At the end of the room furthest from the door sat GLUSHKO, who was chief of the development department of Plant 456. His location made it possible for him to scrutinize anyone walking the length of the room to talk to him, which made visitors extremely uncomfortable. GLUSHKO's secretary also sat in this office.
- Point 11 Administrative Office (15 by 10 meters)
I do not know the exact function of this office, but it had something to do with plant supplies. I know this because it was here that we Germans presented a request to purchase from plant stocks some dural sheets to build paddle boats.
- Point 12 Administrative Office (15 by 8 meters)
The chief engineer of the production department had his office here.
- Point 13 Administrative Office and Conference Room (30 by 10 m.)
A huge conference table took up two thirds of this room and at the other end furthest from the door was the desk of PLASKINI, General Director of Plant 456. In addition to PLASKINI's desk and the conference table, which would seat at least 50 persons, were a large number of chairs, bookcases, and sofas, and many Communist slogans and pictures on the walls. I was in this office two or three times to register complaints. The first complaint was against being quartered in a house in the German settlement with three other men who did not have families with them in the USSR. The other complaint was against the delay in arranging for my family to be brought to the USSR. I learned later that PLASKINI had deliberately killed all such requests from the four of us so that the houses made free by our enforced doubling up could remain occupied by Soviets.
- Point 14 Administrative Office (15 by 10 meters)
In this office were two secretaries, possibly for PLASKINI and for the chief engineer of the production department.
- Point 15 Waiting Room,
Irregularly shaped as shown, 20 by 20 meters in main body of room. As shown on my sketch, the last seven administrative offices described above /see Points 8 through 14/ open off this waiting room. This room was equipped with many chairs, sofas, and reading tables where the latest Communist propaganda leaflets and booklets could be found. The walls were solidly decorated with Communist propaganda, posters, and slogans in addition to plant propaganda (graphs of production rises, lists of awards, etc.).

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Point 16 Design Office (75 by 30 meters)

Here were at least 50 drawing boards and desks, where both developmental and production drawings were made. Prior to 1948 some members of our group working here were assigned to design a combustion chamber of 100 ton thrust rating. After 1948 Germans were no longer permitted to enter here, and I do not know what assignments were worked on after this date.

Point 17 Filing Room (50 by 10 meters)

In this room all drawings from the drafting room just outside were kept on file in metal filing cabinets. Three or four Soviets were employed here. The front fourth of the room is separated from the rest of the room by a wooden gate in front of which persons wishing to be issued a drawing from the files waited.

SECURITY MEASURES IN EFFECT AT PLANT 456

10. Every worker at Plant 456 was issued a plant pass which was picked up by the worker each morning at the guard house in front of the plant. A worker would state his pass number and would be given the pass. Immediately behind the guard post stood a uniformed guard armed with a machine pistol to whom the passes would be shown. For those workers whom the guard knew, a glance at the pass would be sufficient, and the workers would be allowed to enter the plant, but for a new worker or someone whom the guard did not readily recognize, the photograph on the pass would be carefully compared with the bearer's face before such a person would be allowed to pass by. To the best of my knowledge, all workers were issued the same type of pass. It contained a photograph of the worker, his signature, the year for which the pass was good, and six to eight blank squares where special figures (a cross, a diamond, a circle, etc.) were stamped which permitted the bearer to enter the authorized department or departments of the plant. With the exception of the men employed at the test stand outside the plant, no one was permitted to take his plant pass away from the plant, but was required to surrender it at the guard house.
11. Plant passes were issued in January of each year and were good for one calendar year, with automatic renewal in January of the next year.
12. Although Plant 456 was occasionally visited by representatives of the Aircraft Ministry, I do not know what arrangement exists at the plant to extend visitor's passes to such persons. I never saw a visitor's pass.
13. I do not know what procedure is followed if a worker forgets or loses his pass because I do not remember this ever having happened. This is made almost impossible by the requirement that workers must leave their passes at the guard house when leaving the plant.
14. To the best of my memory, new passes are issued by the guard house, but I do not know what administrative section of the plant, if any, controls this system. I say "if any" because all the security measures in effect at Plant 456 may be under the control of the MVD or some other military organization. I believe this to be true because all the guards at the plant were soldiers, and I believe that the chief guard was directly responsible to an MVD officer.

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15. The worker's pass is not used outside Plant 456 because, as mentioned above, a worker must surrender his pass on leaving the plant.
16. Spot searches of Soviet workers were conducted every day at the close of work. However, the Soviet guards hardly glanced at us Germans as we left the plant. We took advantage of this laxity and successfully smuggled many things out of the plant such as wire, nails, screws, hand tools, and an electric drill. We even succeeded in stealing a small outboard motor by dismantling it and smuggling it out of the plant in pieces. When reassembled we used it quite openly on the Khinkakh River, and never once did a Soviet think to inquire where we had obtained it.
17. Workers did not wear any identification tags while working when I was at Plant 456; we kept our plant passes in our pockets.
18. I do not know what procedure is followed for applying to work at Plant 456 because, of course, our group was involuntarily conscripted for work there, and I never learned of the Soviet procedures from the Soviets with whom I worked. The personnel office is located in a wooden building outside the plant, on the other side of the road which leads from Khinki past the plant to the test stands. I was in this building about once every month to attend required political lectures. I do not know who the personnel director of Plant 456 is, but I believe that he was an officer of the MVD at the time that I was there see paragraph 21. I do not have any knowledge of personnel interviews or of the application forms because I never saw any for Soviets. However, I presume that Soviet workers were required to fill out application forms similar to those which we Germans filled out on arrival in the USSR in October 1946 and which covered a person's family, military experience, employment, and political background.
19. I have no knowledge of any security investigations of applicants for work at Plant 456. I believe, however, that such investigations could be done very easily because everyone in the USSR is under constant observation, and the MVD can quickly verify a person's answers to questionnaires.
20. There were at least 20 to 25 guard posts including those along the fence surrounding the plant. Within the plant guards were posted at the doors to those buildings which only authorized persons could enter, such as the Design Office where I was employed, the Special Developmental Department and Testing Room. There were also guards posted at the test stand. Guard shifts were two hours long. During the day guards were armed with only pistols but at night they also carried carbines. The guard at the main gate was armed with a machine pistol. These guards, of both sexes, generally ranged in age from 20 to 30 and wore uniforms similar to those of the Soviet Army but with no insignia that I remember.
21. The chief guard was responsible to the personnel director, who was an officer of the MVD. We learned this when we left the USSR because the personnel director, who had previously always worn civilian clothes, appeared in the uniform of a major in the MVD to act as transportation officer, evidently requiring the immediate authority the uniform gave him to expedite our departure.

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His uniform was similar to that of a major in the Soviet Army, but with green trim on the lapels of the coat and the cap. All of the guards stationed at Plant 456 and the physical security measures in effect at this plant were controlled by the chief guard.

22. Not only were there informers among the Soviet employees of Plant 456, but there were also several informers in our group of German specialists. In effect every Communist is continually on the alert to detect signs of discontent among the people with whom he (or she) associates, and becomes an informer if something is heard or seen counter to Communist doctrine.
23. Around Plant 456 and the storage areas immediately adjacent to it was a fence at least two meters high topped with barbed wire inclined outward. This fence was constructed of timbers about 30 millimeters thick which were nailed to horizontal bars for solidity. I do not know how deep in the ground the fence timbers are sunk. This fence is broken by gates at only six places: at the main gate of the plant, at the plant garages, at two points to admit vehicles, and at two points to allow the railroad spur line to pass across the storage area outside the plant. [See Report No. [redacted] for a description of the area surrounding Plant 456 and source's memory sketch of this area.] All of these gates were guarded by armed sentries 24 hours every day. In addition, there were about 12 guard towers at various points along the fence, each four to five meters high with at least one armed guard stationed in each one 24 hours every day. These towers were each equipped with at least two searchlights which were used to illuminate the fence in both directions from each tower at night. I believe police dogs were used on night patrols but I do not know how many were used per sentry nor how many guards patrol together. Once I worked in the plant until about 11:30 or 12:00 p.m. and noticed that guards were maintained within the plant at night also. (Some parts of the plant worked three shifts.) I do not remember exactly, but I do not believe that all windows of all departments were barred. However, the windows on the Special Developmental Department were barred with steel bars about 15 to 20 millimeters thick which were bolted into the wall of the plant. The bars were from 10 to 12 centimeters apart. I do not have any information on any alarm systems in Plant 456. The only safes I remember at Plant 456 were in the office of the general director and in the offices of the chief and deputy chief of the Developmental Design Office [see Points 13, 1, and 2 on pages 11 and 10]. These were not actually safes, but more properly bar cabinets which were locked with a padlock. On holidays all offices in the plant were sealed by the chief of the guards with a lead seal. These seals would be broken by him personally on the next working day. The design office where I was employed from mid-1948 until September 1950 was locked at the end of the working day and at noon when no one was inside, and the key would be left at the guard office. Drawing boards were always covered with large sheets of paper when not in use, but I believe this was more a protective measure against dust and dirt than a physical security measure. I have no knowledge of security checks at night but occasionally drawing equipment would be missing. We never learned who stole this equipment, that is, whether it could have been guards, security inspection teams, or simply Soviet co-workers in the design office. We never saw this equipment again.

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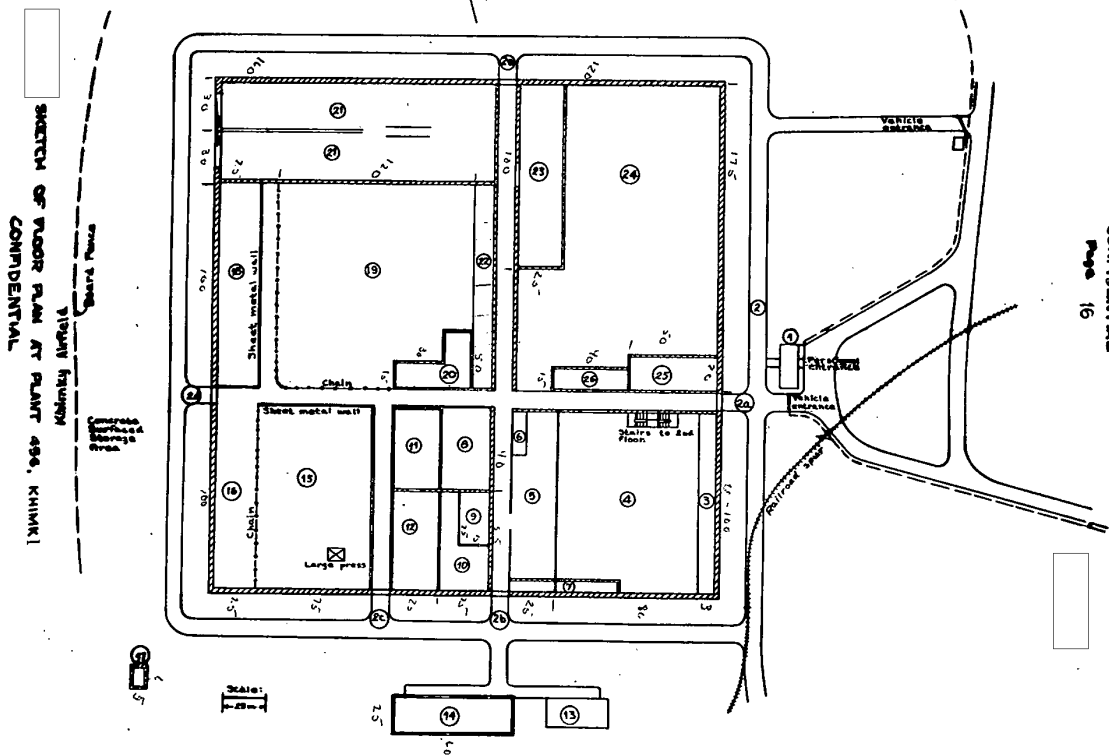
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24. All of the influential posts in the plant from plant director down to leaders of working groups were filled by Communists. As a result, it was they who determined production and personnel policies within the plant, taking the gross production quotas assigned to the plant by the ministry and working from there. Within a given working group I do not believe that members of the Communist Party had a great influence over non-members, but they were always the drivers in a group, those who strove continually for ever higher production, because they knew that it was they who would receive promotions and bonuses for outstanding performance.
25. In the Special Developmental Department all papers were locked in a desk at night. Cleaning personnel were admitted only during working hours, and although they could see generally what we were working on, I doubt whether they could understand anything of what they saw. It was officially forbidden to take any papers or working materials from the plant, and anyone caught doing this would be arrested on the spot for stealing people's property. Nevertheless, as mentioned above paragraph 16 we Germans succeeded in smuggling numerous working tools out of the plant.
26. Secret papers were each classified "Secret" by a blue stamp about three centimeters long. Drawings were classified with the blue stamp just above the descriptive material, and all written pages received the stamp in the upper right-hand corner. I do not know of any classifications other than secret because all the papers we worked on were of this classification.
27. An individual's work was identified by his name written in Russian in the correct box on the drawing or sketch on which he had worked. No seals, initials, numbers, or other methods of identification were used except for the last name of the individual concerned. Each individual wrote his own name personally. I do not have any knowledge on how an individual's work is identified on a piece of written material such as a set of operating instructions for a certain machine.

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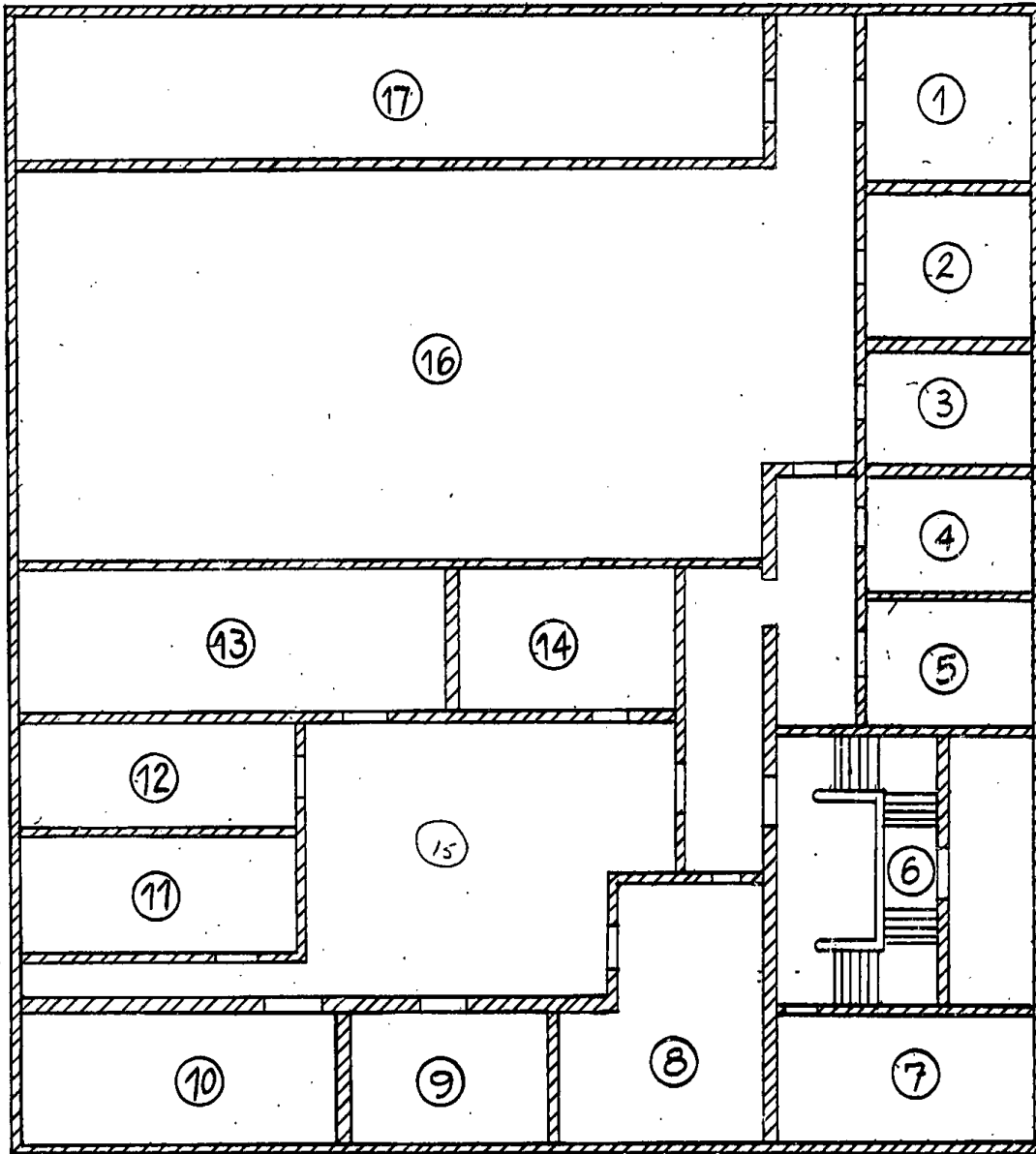
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